Docket No.: NANO 107 US2 (NU 22092) PATENT/OFFICIAL

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Samuel I. STUPP et al.

Serial No. 10/534,266 : Group Art Unit: 1654

Filed: October 13, 2005 : Examiner: David Lukton

For: SYNTHESIS AND SELF-ASSEMBLY OF ABC TRIBLOCK BOLA PEPTIDE

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT AND CERTIFICATION STATEMENT

Honorable Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached form PTO/SB/08a. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom. Copies of any cited U.S. Patents, U.S. Patent Publications, and PCT Publications are not being submitted in accordance with 37 CFR 1.98(a)(2)(i).

The undersigned certifies that Item No. 17 of the Non-Patent Literature Documents section contained in the Information Disclosure Statement was first cited in a communication from the European Patent Office in a foreign application counterpart to a related application not more than three months prior to the filing of the Information Disclosure Statement. See 37 CFR 1.97(e)(1).

The undersigned further certifies that no additional items of information, aside from Item No. 17, contained in the Information Disclosure Statement were cited in a communication from a

foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the Information Disclosure Statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the Information Disclosure Statement. See 37 CFR 1.97(e)(2). The items were, however, cited by Examiners in Notices of References Cited with Office Actions issued in related applications.

In accordance with 37 C.F.R. § 1.97(g) and (h), the filing of this IDS should not be construed as a representation that a search had been made or that information cited is, or is considered to be, material to patentability as defined in 37 C.F.R.§ 1.56 (b), or that any cited document listed or attached is (or constitutes) prior art. Unless otherwise indicated, the date of publication indicated for an item is taken from the face of the item, and Applicant reserves the right to prove that the date of publication is in fact different.

This Information Disclosure Statement is being filed with the appropriate certification, and therefore, no fee is believed to be required.

Respectfully submitted,

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Date: 12 APRIL 200 1

( Not for submission under 37 CFR 1.99)

Application Number		10534266		
Filing Date		2005-10-13		
First Named Inventor Samu		uel I. STUPP et al.		
Art Unit		1654		
Examiner Name David		Lukton		
Attorney Docket Number		NANO 107 US2 (NU 22092)		

	CERTIFICATION STATEMENT						
Plea	lease see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):						
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).						
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Δ.	ianature of the an	SIGNA plicant or representative is required in acco	TURE	8 Please see CFR 1 4(d) for the			
	n of the signature.	i distra Dilla	realice will of it 7.55, fo. i	o. Fiedse see of it 1.4(d) for the			
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	Attorney Docket Number		NANO 107 US2 (NU 22092)	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT ( Not for submission under 37 CFR 1.99)	Examiner Name David		vid Lukton	
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	First Named Inventor Samu		nuel I. STUPP et al.	
	Filing Date		2005-10-13	
	Application Number		10534266	

				U.S.	PATENTS	
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
•	1	5871767		1999-02-16	Dionne et al.	
	2	6156321		2000-12-05	Thorpe et al.	
	3	6270765	B1	2001-08-07	Deo et al.	
	4	6548048	B1	2003-04-15	Cuthbertson et al.	
	5	6855329	B1	2005-02-15	Shakesheff et al.	
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	1	20050214257	A1	2005-09-29	Zhao et al.	
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				FOREIGN PA	TENT DOCUMENTS	

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Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> j	Kind Code4	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T5
	1	99/36107	wo		1999-07-22	Shakesheff et al.		
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Examiner Initials*	Cite No		nal, serial, symp	osium,	catalog, etc),	the article (when approp date, pages(s), volume-is		T5
	1	15, 1992. "The All-D-C	onfiguration Segm	ent Con	taining the IKVA	ey, Yoshihiko Yamada, and N Sequence of Laminin A ( Biological Chemistry, Vol.	Chain Has Similar	
	2	Margomenou-Leonidopoulou, G. 1994. "Thermotropic Mesophases of Ionic Amphiphiles. II. Ionic Amphiphiles in Aqueous Media." Journal of Thermal Analysis. Vol. 42, pp. 1041-1061.						
	3	Rappolt, Michael and Gert Rapp. 1996. "Structure of the Stable and Metastable Ripple Phase of Dipalmitoylphosphatidylcholine." Eur. Biophys. J. Vol. 24, pp. 381-386.						
	4	Goveas, J. L. and S. T. Milner. 1997. "Dynamics of the Lamellar—Cylindrical Transition in Weakly Segregated Diblock Copolymer Melts." Macromolecules. Vol. 30, No. 9, pp. 2605-2612.					Veakly Segregated	
	5	Munson, John B. and Stephen B. McMahon. 1997. "Effects of GDNF on Axotomized Sensory and Motor Neurons in Adult Rats." European Journal of Neuroscience. Vol. 9, pp. 1126-1129.						
	Fernandez, A., M. A. Alsina, I. Haro, R. Galantai, and F. Reig. 1998. "Synthesis and Physicochemical Characterization of Cyclic Laminin Related Peptides." Langmuir. Vol. 14, No. 13, pp. 3625-3630.							
	7		"A Surface-Modifi			ada, Takenori Tomohiro, Ta Capable of Binding to Cell		

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8	Luo, Yi and Glenn D. Prestwich. 2001. "Novel Biomaterials for Drug Delivery." Expert Opin. Ther. Patents. Vol. 11, No. 9, pp. 1395-1410.	
9	Marchi-Artzner, Valerie, Barbara Lorz, Ulrike Hellerer, Martin Kantlehner, Horst Kessler, and Erich Sackmann. 2001. "Selective Adhesion of Endothelial Cells to Artificial Membranes with a Synthetic RGD-Lipopeptide." Chem. Eur. J. Vol. 7, No. 5, pp. 1095-1101.	
10	Blight, Andrew R. November 2002. "Miracles and Molecules—Progress in Spinal Cord Repair." Nature Neuroscience Supplement. Vol. 5, pp. 1051-1054.	
11	Rodger, Alison, Jascindra Rajendra, Rachel Marrington, Malin Ardhammar, Bengt Norden, Jonathan D. Hirst, Andrew T. B. Gilbert, Timothy R. Dafforn, David J. Halsall, Cheryl A. Woolhead, Colin Robinson, Teresa J. T. Pinheiro, Jurate Kazlauskaite, Mark Seymour, Niuvis Perez, and Michael J. Hannon. 2002. "Flow Oriented Linear Dichroism to Probe Protein Orientation in Membrane Environments." Phys. Chem. Chem. Phys. Vol. 4, pp. 4051-4057.	
12	Silva, G. A., K. L. Kehl, K. L. Niece, and S. I. Stupp. May 4, 2003. "Nanoengineered Peptide Amphiphile Network for Photoreceptor Replacement in Degenerative Retinal Disorders." Investigative Ophthalmology & Visual Science. Abstract No. 492 from Annual Meeting of the Association for Research in Vision and Opthalmology.	
13	Brandenburg, Klaus, Frauke Wagner, Mareike Muller, Holger Heine, Jorg Andra, Michel H. J. Koch, Ulrich Zahringer, and Ulrich Seydel. 2003. "Physicochemical Characterization and Biological Activity of a Glycoglycerolipid from Mycoplasma fermentans." Eur. J. Biochem. Vol. 270, pp. 3271-3279.	
14	Czeisler, C., V. M. Tysseling-Mattiace, G. A. Silva, S. I. Stupp, and J. A. Kessler. 2003. "Behavoral Improvement and Increased Survival Rate after Treatment with a Self Assembling Gel in a Rat Model of Spinal Cord Injury." 2003 Abstract Viewer/Itinerary Planner. Program No. 245.22. Washington, DC: Society for Neuroscience. Printed February 5, 2007. Page 1. http://sfn.scholarone.com/itin2003/main.html?new_page_id=126&abstract_id=1554	
15	Schmidt, Christine E. and Jennie Baier Leach. 2003. "Neural Tissue Engineering: Strategies for Repair and Regeneration." Annu. Rev. Biomed. Eng. Vol. 5, pp. 293-347.	
16	t' Hart, Bert A. and Sandra Amor. 2003. "The Use of Animal Models to Investigate the Pathogenesis of Neuroinflammatory Disorders of the Central Nervous System." Current Opinion in Neurology. Vol. 16, pp. 375-383.	
17	Beniash, Elia, Jeffery D. Hartgerink, Hannah Storrie, John C. Stendahl, and Samuel I. Stupp. 2005. "Self-Assembling Peptide Amphiphile Nanofiber Matrices for Cell Entrapment." Acta Biomaterialia. Vol. 1, pp. 387-397.	
18	Hoke, Ahmet. August 2006. "Mechanisms of Disease: What Factors Limit the Success of Peripheral Nerve Regeneration in Humans?" Nature Clinical Practice Neurology. Vol. 2, No. 8, pp. 448-454.	

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	Kokkoli, Efrosini, Anastasia Mardilovich, Alison Wedekind, Emilie L. Rexeisen, Ashish Garg, and Jennifer A. Craig. 2006. "Self-Assembly and Applications of Biomimetic and Bioactive Peptide-Amphiphiles." Soft Matter. Vol. 2, pp. 1015-1024.							
	The LabRat.com. 2007, updated. Hank's Buffered Salt Solution (HBSS) Recipe. http://www.thelabrat.com/protocolsHanks.shtml. Printed January 19, 2007. Pages 1-2.							
If you wisl	h to ac	id add	itional non-patent literature document citation information p	lease click the Add I	outton			
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